REMARKS

Applicant acknowledges that the examiner indicated that claims 17-24, 26, 39, 40, and 46-48 were allowed. Applicant contends that the other claims are also patentable for the reasons discussed below.

Applicant will hold comments on the examiner's statement of reasons for allowance in abeyance until all claims have been allowed.

The examiner objected to claim 25 under 37 CFR 1.75(c) as being of improper dependent form for failing to further limit the subject matter of a previous claim.

Claim 25 has been amended to recite "wherein the modulo unit modulos the accumulated-remainder by dividing the accumulated-remainder by the generator polynomial to obtain the cyclic redundancy code." The term "modulo" as used in this application is broader than the term "divide." As described in page 5, lines 19 to 31, moduloing a segment by a generator polynomial can be performed using at least two methods. One method of moduloing is to divide the segment by the generator polynomial. Another method of moduloing is to multiply the segment by a reciprocal approximation for the generator polynomial. Thus, the amended claim 25 does further limit independent claim 23.

Claims 1-6, 8, 10, 11-15, and 35-37 were rejected under 35 U.S.C. 102(b) as being anticipated by Christensen.

Claims 9 and 16 were rejected under 35 U.S.C. 103(a) as being unpatentable over Christensen in view of Feldmeier.

Christensen does not disclose or suggest storing a reciprocal-approximator for a generator polynomial in a storage; ... obtaining a remainder for each of the plurality of segments, including "multiplying each segment by the stored reciprocal-approximator," ... and obtaining the cyclic redundancy code for the message, including "multiplying the accumulated-remainder by the stored reciprocal-approximator," as recited in amended claim 1.

Christensen discloses calculating remainders by dividing by a generation polynomial (abstract), but does not disclose multiplying each segment by a stored reciprocal-approximator, and multiplying the accumulated-remainder by the stored reciprocal-approximator.

What is lacking in Christensen is also not disclosed or suggested in Feldmeier. Feldmeier discloses that division by d(x) can be rewritten as multiplication by a reciprocal and division by x^w, where w is the processor word size (page 644, left column). This implies that the reciprocal is $x^w/d(x)$. Feldmeier goes on to teach how equation (1) can be rewritten into equations (7) and (8) that can be implemented faster, partly by rewriting the division by d(x) as multiplication by the reciprocal (page 644, right column). Feldmeier uses the reciprocal as a means for simplifying an equation. However, Feldmeier does not disclose or suggest storing the reciprocal and later using the stored reciprocal to multiply other values.

Claims 3-10, which depend directly or indirectly on claim 1, are allowable at least for the reasons discussed in claim 1. Moreover, these claims add additional distinctive features and are allowable in view of the cited references. For example, claim 9 recites the reciprocal-approximator for the generator polynomial comprises X^{p+ra} / P, where P is the generator polynomial, p is the degree of the generator polynomial, and ra is the degree of the reciprocal-approximator. The cited references do not suggest at least these features of claim 9.

Claim 11 and 35 are patentable for at least similar reasons as claim 1.

Claims 12-16, which depend directly on claim 11, are allowable at least for the same reasons as claim 11. Moreover, these claims add additional distinctive features and are allowable in view of the cited references. For example, claim 16 recites the reciprocal-approximator for the generator polynomial comprises X^{p+ra} / P, where P is the generator polynomial, p is the degree of the generator polynomial, and ra is the degree of the reciprocal-approximator. The cited references do not suggest at least these features of claim 16.

Claims 36-38 and 49, which depend directly on claim 35, are allowable at least for the same reasons as claim 35. Moreover, these claims add additional distinctive features and are allowable in view of the cited references. For example, claim 49 recites the reciprocal-

approximator for the generator polynomial comprises X^{p+ra} / P, where P is the generator polynomial, p is the degree of the generator polynomial, and ra is the degree of the reciprocal-approximator. The cited references do not suggest at least these features of claim 49.

No fee is believed to be due. Please apply any charges or credits to deposit account 06-1050.

Respectfully submitted,

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